

POLAND/Physical Chemistry - Surface Phenomena, Adsorption,  
Chromatography, Ion Exchange.

B.

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 46139

adsorption of the air itself and considerably less in  
the A of  $CS_2$ . The presence of air does not influence  
the A degree of  $CS_2$ , because the apparent change in the  
adsorption properties of carbon are caused by the de-  
sorption of air.

Card 2/2

POLAND / Chemical Technology, Chemical Products and  
Their Application, Part 4. - Artificial and  
Synthetic Fibers. H

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 63031.

Author : Mieczyslaw Wronski

Inst : Lodz University.

Title : Complete Analysis of Viscose.

Orig Pub: Zesz. nauk, Univ. odzk., 1957, Ser. 2, No 3,  
159 - 165.

Abstract: Cellulose xanthogenate (I) is deposited from  
viscose with saturated NaCl solution.  $Na_2CS_3$   
and  $Na_2CS_4$  are determined photometrically in  
the filtrate.  $Na_2S$  and  $Na_2S_2O_3$  are determined  
by direct iodometric titration, NaOH and  $Na_2-$   
 $CO_3$  are determined acidimetrically. The con-  
centration of I is found from the difference

Card 1/X2

POLAND / Chemical Technology, Chemical Products and H  
Their Application, Part 4. - Artificial and  
Synthetic Fibers.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 63031.

Abstract: between the iodine amounts consumed by the titration of the initial viscose and of the filtrate. The complete analysis takes 20 min. or less.

Card 2/2

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POLAND/Physical Chemistry. Surface Phenomena, Adsorption.  
Chromatography, Ion Exchange.

B

Abs Jour: Ref Zhur-Khim., No 15, 1958, 49752.

Author : Wronski, Mieczyslaw.

Inst : Lodz University.

Title : Sorption of Carbon Disulfide by Alkali Cellulose.

Orig Pub: Zesz. nauk. Univ. lodzka., 1957, Ser. 2, No 3, 167-170.

Abstract: Study of temperature dependence of the adsorption of CS<sub>2</sub> vapor by alkali cellulose. CS<sub>2</sub> adsorption curves show a minimum at a temperature of about 14° which indicates chemical and physical adsorption. --

Author's summary.

Card : 1/1

39

WRONSKI MIECZYSŁAW  
POLAND/Artificial and Synthetic Fibers.

H.

Abs Jour : Ref Zhur - Khimiya, No 19, 1958, 66205

Author : Wronski Mieczyslaw

Inst : An Investigation of the Penetration of a Precipitating  
Title : Bath Through Layers of Viscose.

Orig Pub : Zesz. nauk. Univ. lodz., 1957, Ser. 2, No 3, 171-175.

Abstract : By means of a glass electrode, the rate of penetration of a precipitating bath through layers of viscose was investigated. The derived pH-time experimental graph of the contact of a viscose layer, found on the electrode, with the precipitating bath, possess three small curves. The first corresponds to the neutralization of NaOH and the formation of  $Na_2SO_4$  and  $Na_2CO_3$ ; the second, to the decomposition of these salts; the third, to the decrease of the concentration of hydrogen ions. Proceeding from the assumption that through the layer formed of

Card 1/2

47

POLAND/Physical Chemistry. Kinetics. Combustion. Explosions. B  
Topochemistry. Catalysis.

Abs Jour: Ref Zhur-Khim., No 15, 1958, 49623.

Author : Wronski, Mieczyslaw.

Inst : Lodz University.

Title : Kinetics of Decomposition of Sodium Ethyl Xanthogenate  
in Caustic Alkali.

Orig Pub: Zesz. nauk. Univ. lodzk., 1957, Ser. 2, No 3, 177-185.

Abstract: Determination of the correlation between rate of  
decomposition of  $C_2H_5OCSSNa$ , with formation of  
 $Na_2S$  and  $Na_2CS$ , and concentration of caustic  
alkali, temperature, and the presence of  $Na_2S$ .  
Decomposition of xanthogenate occurs according to  
two distinct schemes:  $ROSS^- = RO^- + CS_2$  and  $ROCSS^- +$

Card : 1/2

POLAND/Physical Chemistry. Kinetics. Combustion. Explosions.  
Topochemistry. Catalysis. D

Abs Jour: Ref Zhur-Khin., No 15, 1958, 49623.

$\text{OH}^- = \text{ROH} + \text{CS}_2\text{O}^{2-}$ . Rate of decomposition of xantho-  
genate is defined by the equation:  $-\frac{dx}{dt} = k_1 x +$   
 $k_2 x (\text{NaOH})^2$ . -- Author's summary.

Card : 2/2

26

POLAND / Analytical Chemistry. Analysis of Organic  
Substances.

E-3

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 1029.

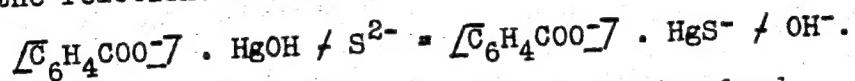
Author : Wronski, M.

Inst : ~~Not given.~~ Univ. Lepz, Poland

Title : The Titration of Sulfides With o-Hydroxy Mercuro-  
benzoic Acid.

Orig Pub: Chem analit., 1957, 2, No 4, 385-386.

Abstract: The titrimetric method for the determination of  
S<sup>2-</sup>, in the presence of SO<sub>3</sub><sup>2-</sup>, S<sub>2</sub>O<sub>3</sub><sup>2-</sup> and xantho-  
genates is described, the method being based on  
the reaction:



From 0.1 to 0.5 millimoles of Na<sub>2</sub>S is dissolved

Card 1/3

POLAND / Analytical Chemistry. Analysis of Organic E-3  
Substances.

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 1029.

Abstract: in 150 millimeters of water from which oxygen has been removed previously by the addition of  $\text{Na}_2\text{SO}_3$ , then 5 milliliters of 0.5 N NaOH is added followed by a few drops of 0.1% sodium nitroprusside solution, and the mixture is titrated with 0.05 M solution of 6-hydroxy mercurobenzoate of Na (I) until the disappearance of the violet color. The solution of I is prepared by dissolving o-hydroxy mercurobenzoic anhydride in a 0.25 N NaOH solution. A titre of the solution obtained is determined iodometrically; for that purpose 10 milliliters of concentrated sulfuric acid and 10 milliliters of 0.1N iodine solution are added to 10 millilit-

Card 2/3

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**"APPROVED FOR RELEASE: 04/03/2001**

CIA-RDP86-00513R001961730003-1

✓ The triethiocarbonate formation in the xanthate reaction  
W. H. H. STILLE, J. R. BROWN, AND J. A. BROWN  
RECEIVED JUNE 25, 1952 THE J. A. BROWN  
RECEIVED JUNE 25, 1952 THE J. A. BROWN

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001961730003-1"

POLAND / Laboratory Equipment, Apparatus; Their Theory,  
Construction and Application.

F

Abs Jour : Ref Zhur - Khim., No 10, 1958, No 32280

Author : Jozef Chrzaszowski, Mieczyslaw Wronski.

Inst : -  
Title : Simple Determination Method of Isotherm of Vapor Adsorption  
on Solid Substances.

Orig Pub : Roczn. chim., 1957, 31, No 1, 297-299

Abstract : A simple apparatus for measuring isotherms of vapor adsorption is described. The apparatus consists of a gas burette connected with a Hg manometer, vacuum installation and two vessels with faucets for the adsorbent and adsorbed substance. Computation equations are presented.

Card 1/1

WRONSKI M.  
POLAND / Laboratory Equipment, Apparatus, Their Theory, F  
Construction and Application.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60749.

Author : Mieczyslaw Wronski.

Inst :  
Title : Effect of Width of Spectral Zone on Photometric Measurements.

Orig Pub: Roczn. chem., 1957, 31, No 1, 309-313.

Abstract: The effect of the polychromaticity of light on the extinction (E) measurements was computed. Making some simplifying assumptions, the author receives for the value of E:  $E = \log[2.3(\sum_2 - \sum_1)k/(10^{-k\sum_1} \cdot 10^{-k\sum_2})]$ , where k is the product of the solution concentration and the thickness of the absorbing layer, and  $\sum_2$  and  $\sum_1$  are the E factors at the

Card 1/2

1

✓ Titration of hydrogen sulfide and other sulfides with organic mercury compounds. Aliczyslaw Wroński and Philipp Burkhardt. *Pasterzisch. u. Textiltech.* 9, 38-7 (1958). — A 0.05N soln. of  $2\text{-HOOCCH}_2\text{HgOH}$  is used for the titration of  $\text{S}^{2-}$  or  $\text{HS}^-$ , a colorless 0.5% soln. of thiofluorescein (the dimercapto analog of fluorescein) in 0.1N NaOH being used as indicator. In the presence of  $\text{S}^{2-}$ , a sharp change to dark blue indicates the end of the titration. The presence of large amounts of  $\text{I}^-$ ,  $\text{NCS}^-$ , or  $\text{Cl}^-$  does not disturb the reaction. Since  $\text{CN}^-$ , xanthates, or  $\text{S}_2\text{O}_4^{2-}$  disturb the reaction, the use of dithizone as indicator is recommended when xanthate or  $\text{S}_2\text{O}_4^{2-}$  is present in larger amounts. Polysulfides are also titrated, but the addn. of  $\text{S}_2\text{O}_4^{2-}$  is indicated for better end-point detn. The method shows excellent correlation with the complexometric detn. and is also suitable for the  $\text{H}_2\text{S}$  analysis of air or exhaust gases. Paul D. Burgauer

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WRONSKI, M.

Organic mercury compounds in chemical analysis. Mieczysław Wronski (Univ. Łódź, Poland). *Zeszyty Nauk. Uniw. Łódzkiego*, Ser. II No. 4, 181-93 (1958) (English summary).—Compds. of the type  $\text{RHgOH}$ , sol. in alkalies owing to the presence of OH or COOH groups (mainly  $\text{o-HOC}_2\text{H}_5\text{HgOH}$  (I)), were used in the volumetrical detn. of some S compds. in the presence of color indicators. The titrant (0.05M) was prep'd. by dissolving I in 0.2N NaOH and standardized with  $\text{Na}_2\text{S}_2\text{O}_3$  or  $\text{Na}_2\text{S}$ . To det.  $\text{S}^{2-}$ , 100 ml. of a soln. contg.  $5 \times 10^{-3} - 2 \times 10^{-2}$  g.  $\text{H}_2\text{S}$  was treated with 5 ml.  $N$  KOH or NaOH, 1 ml. of 0.1% dithizone in EtOH, and titrated with I until the yellow color turned red;  $\text{SO}_4^{2-}$ ,  $\text{S}_2\text{O}_4^{2-}$ ,  $\text{CNS}^-$ , thiourea, and moderate quantities of xanthates (II) (unlike mercaptans, thiocarbonates (III), and  $\text{CN}^-$ ) did not interfere with the detn. Dithiocarbonates were titrated in the presence of dithiolumorescein (IV) (0.05% soln. in 0.01N NaOH with 1-Na added to full decolorization) until the blue color completely disappeared.  $\text{Na}_2\text{S}_2$  can be titrated like  $\text{Na}_2\text{S}$ , but more reliably after re.ln. to  $\text{Na}_2\text{S}$  by heating with 10%  $\text{Na}_2\text{SO}_3$ , and then titrating as usual (result A); to det.  $\text{Na}_2\text{S}$  and  $\text{Na}_2\text{S}_2$  in mixts. a 2nd titration was necessary. The soln. tested was treated with excess I, heated to boiling, cooled, treated with excess  $\text{Na}_2\text{S}$ , and titrated as usual (result B);  $\text{Na}_2\text{S}$  content = 2.5 (A - 0.6B) and  $\text{Na}_2\text{S}_2$  content = 1.5 (B - A). III were detd. most conveniently by titrating with  $\text{Na}_2\text{S}$  the excess of

a blue color;  $\text{SO}_4^{2-}$ ,  $\text{I}^-$ ,  $\text{CNS}^-$ , and thiourea obstructed the detn. Thiophenols, II, and mercaptobenzothiazoles were titrated with bis(hydroxymercu)thymol (VI) or  $\text{Hg}(\text{NO}_3)_2$  in slightly alk. medium, and in the presence of V; the detn. was obstructed by  $\text{I}^-$ ,  $\text{S}_2\text{O}_4^{2-}$ ,  $\text{SO}_4^{2-}$ , and thiourea, but not by  $\text{SO}_4^{2-}$ ,  $\text{Cl}^-$ , and small quantities of  $\text{CNS}^-$ ,  $\text{Br}^-$ , or  $\text{NH}_4^+$ . To det. II in the presence of  $\text{S}^{2-}$  and III, the soln. was acidified with  $N$  HCl and then made alk. with  $N$  NaOH, transforming thereby III into  $\text{S}^{2-}$ , the sum of which was detd. by I titration; in a sep. sample all 3 components were detd. iodometrically, and II was calcd. as the difference. The system  $\text{Na}_2\text{S}-\text{Na}_2\text{S}_2\text{O}_3-\text{Na}_2\text{SO}_4$  was titrated with VI,  $\text{S}^{2-}$  in the presence of IV, and then, after adding  $\text{NH}_4\text{Cl}$ , thiosulfates in the presence of V;  $\text{SO}_4^{2-}$  was detd. by addnl. iodometric titration. Hg derivs. of phenolphthalein and fluorescein proved sensitive to some S compds.; this property may be useful in colorimetric assays. Titration of S compds. with I can be reversed and used for detg. Hg in org. compds.; IV was preferred in such detns. and used in excess which should be back-titrated with standard  $\text{Hg}(\text{NO}_3)_2$ . All indicators are described in detail: monothiolumorescein, dimer-captophenolphthalein, and di-2-naphthylthiocarbazone were used besides those mentioned above. Dissocn. consts. of the following products were detd. photometrically: I + IV,  $2.36 \times 10^{-3}$  in 0.04N, and  $0.26 \times 10^{-3}$  in 0.002N NaOH; I + V,  $2.08 \times 10^{-4}$  in 0.08N, and  $1.68 \times 10^{-4}$  in 0.002N NaOH; I + V - 0.1  $\times 10^{-4}$  at pH 5.0. J. Lange

Country : Poland B  
Category : Physical Chemistry - Kinetics. Combustion. Explosions. Topochemistry. Catalysis. 45131  
Abs. Jour : RZhKhim., No 13, 1959

Author : Wronski, M.  
Institut. : Not given  
Title : The Kinetics of the Reaction of Sodium Hydrate with Carbon Disulfide

Orig. Pub. : Roczniki Chem., 32, No 4, 849-861 (1958)

Abstract : The author has investigated the kinetics of the reaction of NaOH with CS<sub>2</sub> as a function of the concentration of the alkali solution (0.45-5.00 M) at 15 and 25°. The effect of the addition of Na<sub>2</sub>SO<sub>3</sub> (0.125 M Na<sub>2</sub>SO<sub>3</sub> in 1 M NaOH) on the reaction rate was studied. The concentration of the reaction products, Na<sub>2</sub>S and Na<sub>2</sub>CS<sub>2</sub>, was determined by amperometric titration. It has been found that the rate of NaOH consumption is described by the equation:  
$$-d[NaOH]/dt = k_1 [NaOH][CS_2]$$
 and that the rate of Na<sub>2</sub>CS<sub>2</sub> formation follows the equation:

Card: 1/3

Country	:	Poland	B
Category	:		
Abs. Jour	:		45151
Author	:		
Institut.	:		
Title	:		
Orig Pub.	:		
Abstract	:	$d[\text{Na}_2\text{CS}_2] = k_1[\text{Na}_2\text{S}][\text{CS}_2] + k_2[\text{NaOH}][\text{CS}_2]$ (1)	
		The value of $k_1$ increases with increasing initial concentration of the NaOH solution, as can be expected on the basis of current theories on the solvation of the $\text{S}^{2-}$ ion. The addition of $\text{Na}_2\text{SO}_4$ has no effect on the reaction rate. Notwithstanding the earlier proposed reaction scheme:	
		$\text{CS}_2 + 6\text{NaOH} = 2\text{Na}_2\text{S} + \text{Na}_2\text{CO}_3 + 3\text{H}_2\text{O}$	
		$\text{Na}_2\text{S} + \text{CS}_2 = \text{Na}_2\text{CS}_2$	
		(RZhKhim, No 2, 1953, 1574), the formation of $\text{Na}_2\text{CS}_2$ according to equation (1) proceeds in a more complicated way. In the opinion of the author the initial step in the reaction of NaOH with	

Card: 2/3

Country : Poland  
Category :

B.

Abs. Jour :

45131

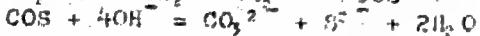
Author :  
Institut. :  
Title :

Orig Pub. :

Abstract :  $\text{CS}_2$  involves the formation of the ion  $\text{CS}_2\text{OH}^-$  by the reaction



The latter ion dissociates in two ways:



and



For reaction (2) values of  $\Delta H^\ddagger = 21.4 \text{ kcal/mol}$  and  $\Delta S^\ddagger = 0 \text{ e.u.}$  have been obtained.

C. Polotnyuk

Card: 3/3

P/012/59/004/03/05/020

82240

5.3200

AUTHOR:

Wroński, M.

TITLE:

The Kinetics of the Xanthate Reaction of Starch, Cellulose and  
Sodium AlginatePERIODICAL: Societas Scientiarum Lodziensis Acta Chimica, 1959, Vol 4,  
pp 47 - 54

TEXT: Owing to the great technological importance of the process of cellulose sulphidizing, numerous investigations of this reaction have been carried out before, but methods used were such that clear interpretation of results was impossible. This was so, because the reactions between alkali-cellulose and gaseous carbon disulphide are rather complicated owing to the adsorption and diffusion which obscures the real kinetic course. In this investigation, measurement of the sulphidizing rates in a single phase arrangement were carried out with a constant concentration of carbon disulphide. Because of this, the interpretation of results was easy. The process of formation of cellulose and starch xanthates, sodium salt of alginic acid and of some by-products was examined; the speed of cellulose xanthate decomposition in NaOH solutions was also investigated. From the results

Card 1/2

822h0

P/012/59/004/03/05/020

The Kinetics of the Xanthate Reaction of Starch, Cellulose and Sodium Alginate

obtained the speed of reaction constants was calculated. In the case of starch it was found that introduction of the second xanthate group into the glucose ring is much more difficult than in the case of cellulose. Sodium hydroxide and sodium chloride both suppress the speed of cellulose xanthate decomposition. There are 4 figures, 2 tables and 6 references: 3 Polish, 2 German and 1 English.

ASSOCIATION: Katedra Technologii Chemicznej Uniwersytetu Łódzkiego (Łódz University, Department of Chemical Technology)

PRESENTED: March 11, 1960

Card 2/2

P/012/59/004/03/06/020

53200

AUTHOR:

Wroński, M.

82241

TITLE: The Kinetics of the Xanthate Reaction of Allyl and Furfuryl Alcohol, Glycolic Acid and Methylene Glycol

PERIODICAL: Societas Scientiarum Lodziensis Acta Chimica, 1959, Vol 4, pp 55 - 63

TEXT: The author presents the continuation of his investigations concerning the mechanism of xanthate reaction, generally expressed by the following equation:  $\text{ROH} + \text{NaOH} + \text{CS}_2 = \text{ROCSSNa} + \text{H}_2\text{O}$ . The process of formation and decomposition of xanthates of aliphatic mono- and polyalcohols, glucose and saccharose has been investigated by the author before. This report presents the results of investigations concerning the influence of some groupings on the course of xanthate reaction. Apparently no investigations of xanthation of such alcohols has been made yet so far. The process of xanthate and by-product formation during the sulphidizing of allyl- and alpha furfuryl alcohols, glycolic acid and methylene glycol at 15° and 25° as well as the speed of allyl xanthate decomposition at 55° and 65°C were investigated. From results obtained the speed of reaction constants

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Card 1/2

P/012/59/004/03/06/020

The Kinetics of the Xanthate Reaction of Allyl and Furfuryl Alcohol, Glycolic Acid and Methylene Glycol 82241

was calculated. Allyl alcohol and glycolic acid form fairly stable xanthates, while methylene glycol xanthate hydrolyses instantaneously after formation. In conformity with this, methylene glycol catalyses the hydrolysis of carbon disulphide in the presence of NaOH. During the process of alphafurfuryl alcohol sulphidizing the monothiocarbonate appears in quantities largely exceeding the amount of by-products formed. This could be explained if one admits that sulphur can extrude oxygen from the furan ring. No reaction has been observed between sodium phenolate and carbon disulphide. There are 5 figures, 1 table and 7 references: 1 English an 6 Polish.

ASSOCIATION: Katedra Technologii Chemicznej Uniwersytetu Łódzkiego (Łódz University, Department of Chemical Technology)

4

PRESENTED: March 11. 1959

Card 2/2

WRONSKI, M.

✓ Kinetics of xanthation of polybasic alcohols. Mieczysław Wróński (Univ. Łódź, Poland). *Zeszyły Nauk. UBL. Lódzkiego, Ser. II, No. 3, 191-202 (1969).* — Xanthation of ethylene glycol (I), glycerol (II), D-glucose (III), and trimethylene glycol (IV) was investigated kinetically as earlier (preceding abstr.). The following data were found in solns. contg. 50 g./l. of the alc. in 0.5N NaOH (compd., temp.,  $k_1$ ,  $k_2$ ,  $k_3$ ,  $k_4$ , and  $k_5$  given): I, 15°, 0.16,  $0.24 \times 10^{-3}$ , 0,  $5 \times 10^{-3}$ ; I, 25°, 1.1, 0,  $6.8 \times 10^{-3}$ , 0,  $8 \times 10^{-3}$ ; II, 15°, 0.79, 0, 0.16, 0,  $0.8 \times 10^{-3}$ ; II, 25°, 1.0, 0, 0.36, 0,  $2.4 \times 10^{-3}$ ; III, 15°, 0.43,  $2.5 \times 10^{-3}$ , 0,  $2.2 \times 10^{-3}$ ,  $2.0 \times 10^{-3}$ ; III, 25°, 1.3,  $1.2 \times 10^{-3}$ , 0, 0.14,  $0.1 \times 10^{-3}$ ; IV, 15°, 0.384, —, —, —; IV, 25°, 0.015, —, —, —; IV, 40°, —,  $9.4 \times 10^{-4}$ , —,  $5 \times 10^{-4}$ , —; IV, 50°, —,  $1.7 \times 10^{-3}$ , —,  $1.4 \times 10^{-3}$ , —. Decompn. of the xanthates of I and II followed the equation  $-dx/dt = k_2x^2$  [NaOH], whereas those of III and IV decompd. according to  $-dx/dt = k_2x + k_3x^2$  [NaOH]<sup>2</sup>. Several graphs were reproduced and detailed anal. procedure was given. J. Langa

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1-jaj/NB

✓ Synthesis of 2-(o-hydroxyphenyl)benzoxazole. Mieczysław Wroński (Univ. Łódź, Poland). Roczniki Chem. 33, 809-10 (1959) (English summary).—P<sub>2</sub>O<sub>5</sub> (28 g.) is added during 2 hrs. to 16 g. salicylic acid and 10 g. o-aminophenol with intensive mixing and keeping the temp. at 160-80°. The product is heated with H<sub>2</sub>O, filtered, the ppt. dissolved in 100 ml. hot EtOH, again ppt'd. by diln. with H<sub>2</sub>O, and purified further (Walter and Freiser, C.A. 46, 9011). The yield of 2-(o-hydroxyphenyl)benzoxazole, m. 122-4°, is 60%.

A. Krajewski

Card 1/1

aht

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4E 3  
199 (N3)

WRONSKI, Mieczyslaw

Kinetics of xanthate reaction of simple alcohols. Rocznik chemii 33  
no. 4/5: 1061-1069 '59. (EKA 9:9)

1. Zaklad Technologii Chemicznej Uniwersytetu, Lodz.  
(Xanthates) (Carbon disulfide) (Methanol)  
(Ethyl alcohol) (Propyl alcohol) (Butyl alcohol)  
(Isopropyl alcohol)

WRONSKI, M.

Distr: 4E2c(j)

The kinetics of decomposition of xanthogenates in sodium hydroxide solutions. Mieczyslaw Wronski (Univ. Lodz, Poland). Roczniki Chem. 33, 1071-80 (1959) (German summary).—The rate of decompos. of Me, Et, Pr, iso-Pr, and Bu xanthogenates at 65 and 75° is expressed by the following equation as a function of NaOH concn.:  $-dx/dt = k_1x + k_2x[\text{NaOH}]^2$ .

$k_1x[\text{NaOH}]^2$ . The ratio  $k_1/k_2$  is about 2 for the Me ester and about 3 for others. The values of the consts. decrease: Me > Et > Bu > iso-Pr. For NaOH concns. below 0.3N the reaction can be expressed by  $-dx/dt = k_1x$ .

A. Kreglewski

3  
1  
-gugl(No)

Jef

WRONSKI, M.

3  
288 (N)

Kinetics of the xanthate reaction of simple alcohols.  
M. Wronski (Univ. Lodz, Poland). *Z. physik. Chem. (Leipzig)* 211, 113-17 (1959).—The xanthate reaction of simple alcohols is assumed to proceed according to:  $\text{ROH} + \text{OH}^- \rightarrow \text{RO}^- + \text{H}_2\text{O}$ ;  $\text{RO}^- + \text{CS}_2 \rightarrow \text{ROCS}^-$ . If  $dx/dt = k_1[\text{RO}^-][\text{CS}_2]$ ,  $K = [\text{RO}^-]/[\text{ROH}][\text{OH}^-]$ ;  $\epsilon = [\text{S}^{2-}] + [\text{CS}_2^-]$ , and  $a =$  initial concn. of ROH, then  $\ln[a/(a-x)] = k_1 K t / k_2$ . The values obtained by aid of this equation conform well with those found in the literature. P. B.

WRONSKI, M.

4226  
4134

Maximum reaction velocity of carbon disulfide in sodium hydroxide. M. Wronski (Univ. Lodz, Poland). Z. physik. Chem. (Leipzig) 211, 118-20 (1959); cf. C.A. 52, 15218. The reaction velocity of  $\text{CS}_2$  in NaOH shows a distinct max. that is caused by the slope of the product  $(\text{OH}^-)(\text{KCS}_2)$  as a function of the NaOH.  $(\text{CS}_2) = \text{const. concn. of } \text{CS}_2 \text{ in NaOH}$ . This max. can be calcd. by aid of the formula  $(\text{OH}^-)(\text{KCS}_2) = y = 9(\text{CS}_2) = 9 \times 10^4 \text{ mole/l. sec.}$ , where  $9 = [\text{NaOH}]$  in mole/l.,  $m = 0.103$ , and  $A = \text{a temp.-depend. const.}$  If for a given end concn. of NaOH,  $\text{G}_1$ , the initial concn.,  $\text{G}_0$ , is so to be chosen that the reaction runs off in a min. of time,  $\text{G}_1$  can be detd. by  $\text{G}_1 = - (1/2 \cdot m) + 9 \cdot (A \cdot \text{G}_0) + \text{G}_0 / A$ . Friedrich Spiegel

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74

WRONSKI, Mieczyslaw

Indirect mercurimetric determination. Chem anal 5 no.1:101-107 '60.  
(EEAI 9:11)

1. Zaklad Technologii Chemicznej Uniwersytetu, Lodz.  
(Mercurimetry)

WRONSKI, Mieczyslaw

Determination of small amounts of silver and mercury by using  
thiofluorescein. Chem anal 5 no.2:289-291 '60. (EEAI 10:3)

1. Zaklad Technologii Chemicznej Uniwersytetu, Lodz.  
(Silver) (Mercury) (Thiofluorescein)

WRONSKI, Mieczyslaw

Argentometric determination of cyanide with a thiofluorescein indicator.  
Chem anal 5 no.2:293-296 '60. (EEAI 10:3)

1. Zaklad Technologii Chemicznej Uniwersytetu, Lodz.  
(Argentometry) (Cyanides) (Thiofluorescein)

WRONSKI, Mieczyslaw

The indirect colorimetric determination of sulfide and cyanide  
with the aid of thiophorescein. Chem anal 5 no.3:457-460 '60.  
(EEAI 10:8)

1. Zaklad Technologii Chemicznej Uniwersytetu, Lodz.  
(Colorimetry) (Sulfides) (Cyanides) (Thiophorescein)

WRONSKI, Mieczyslaw

Titration of mercury and nickel salts with cysteine solution.  
Chem anal 5 no.3:511-512 '60. (EEAI 10:8)

1. Zaklad Technologii Chemicznej Uniwersytety, Lodz.  
(Mercury) (Nickel) (Cysteine) (Solutions)

WRONSKI, Mieczyslaw

Volumetric determination of trace amounts of copper with oxin blue.  
Chem anal 5 no.4:597-599 '60. (EEAI 10:9)

1. Department of Chemical Technology, Lodz.

(Copper) (Oxin blue)

WRONSKI, Mieczyslaw

Rapid determination of mercury compounds in crude phenylmercury acetate. Chem anal 5 no.4:601-604 '60. (EEAI 10:9)

1. Department of Chemical Technology, University, Lodz.

(Mercury) (Phenylmercury acetate)

WRONSKI, Mieczyslaw

Mercurimetric determination of styrene, acrylonitrile and methyl  
acrylate. Chem anal 5 no.5:823-826 '60. (EEAI 10:9)

1. Department of Chemical Technology, University, Lodz.

(Mercurimetry) (Styrene} (Acrylonitrile)  
(Methacrylate)

WRONSKI, Mieczyslaw

The influence of acids on the rate of mercurization of phenol and  
aniline. Rocznik chemii 34 no.3/4: 947-952 '60. (EEAI 10:3)

1. Katedra Technologii Chemicznej Uniwersytetu, Lodz.  
(Acids) (Phenol) (Aniline) (Mercury)

WRONSKI, Mieczyslaw

Desulfurating titration of organic sulphur compounds. Chem anal 6  
no. 5:869-876 '61.

1. Department of Chemical Technology, University, Lodz.

WRONSKI, Mieczyslaw, Doc.Dr.inz. (Lodz, Nowotni 18)

Mercurimetric determination of sulfur compounds applying acrylonitrile  
as selective masking agent. Acta chimica Hung 28 no.1/3:303-309  
'61. (EEAI 10:9)

1. Institut fur Chemische Technologie der Universitat Lodz, Polen.

(Mercurimetry) (Sulfur) (Acrylonitrile)

WRONSKI, Mieczyslaw

Accuracy of titration of sulfide with the sodium salt of  
o-hydroxymercuribenzoic acid. Nauki matem przyrod Lodz  
no.10:205-210 '61.

1. Department of Chemical Technology, University, Lodz.

WRONSKI, Mieczyslaw; HAZEK, Lucyna

Kinetics of the hydrolysis of Phenyl isothiocyanate in  
solutions of sodium hydroxide. Nauki matem przyrod Lodz  
no.12:155-162 '62.

1. Katedra Technologii Chemicznej, Uniwersytet, Lodz.

WRONSKI, Mieczyslaw

Speedy determination of mercury in mercury preparations.  
Chem anal 7 no.4:821-826 '62.

1. Department of Chemical Technology, University, Lodz.

WRONSKI, Mieczyslaw

Determination of thioglycolic acid in the presence of sulfide,  
sulfite and thiosulfate. Chem anal 7 no.4:851-854 '62.

1. Department of Chemical Technology, University, Lodz.

WRONSKI, Mieczyslaw

Microdetermination of sulfides and thiourea in thiocyanates.  
Chem anal 7 no.5:1009-1010 '62.

1. Katedra Technologii Chemicznej, Uniwersytet, Lodz.

WRONSKI, Mieczyslaw

Determination of mercuric acid in phenylmercuric acetate. Chem anal 7 no.5:1011-1012 '62.

1. Katedra Technologii Chemicznej, Uniwersytet, Lodz.

S/081/63/000/003/008/036  
B144/B186

AUTHOR: Wroński, Mieczysław

TITLE: Desulfurating titration of organic sulfur compounds

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1963, 141, abstract  
3G159 (Chem. analit. (Polska), v. 6, no. 5, 1961, 869-876  
[Eng.; summary in Pol.])

TEXT: When o-hydroxy mercury benzoic acid (OA) acts on compounds containing CS groups in alkaline medium, compounds of the type R-Hg-S-Hg-R are formed. It is suggested that this reaction be used for determining compounds containing hydrolyzable sulfur (e. g. thiourea, thioacetamide) by direct titration of the solutions with OA. Making use of the differences in reaction rates, it is possible by this method to determine the sulfur compounds separately in the presence of others. The reaction rate increases with increasing concentration of the base and rising temperature. The compounds studied can be arranged in the following order according to the decreasing rate of reaction with OA: phenyl monothiocarbamate (I), ethyl dithiocarbamate (II), benzyl dithiocarbamate (III), phenyl dithiocarbamate (IV), dithiocarbamate (V),  $\beta$ -amino ethyl dithiocarbamate (VI),

Card 1/4

S/081/63/000/003/008/036

B144/B186

Desulfurating titration of organic ...

$\beta$ -hydroxy ethyl dithiocarbamate (VII), diphenyl thiourea (VIII), rubeanic acid (IX), ethyl monothiocarbamate (X), rhodanine (XI),  $\beta$ -naphthyl thiourea (XII), thiourea (XIII), thiosemicarbazide (XIV), thioacetamide (XV), cellulose xanthate (XVI), trithiocarbonate (XVII), methyl xanthate (XVIII), bis-hydroxy ethyl dithiocarbamate (XIX), mercapto thiazoline (XX), dithiocarbazinate (XXI), phenyl dithiocarbazinate (XXII), ethyl xanthate (XXIII), diethyl dithiocarbamate (XXIV),  $\alpha$ -phenylene thiourea (XXV), mercapto benzothiazole (XXVI), ethylene thiourea (XXVII), mercapto thioketo thiodiazole (XXVIII), thiosulfate (XXIX), thiocyanate (XXX). For determining I, and V - X, 5 ml 1 N NaOH solution, water or (in the case of insoluble compounds)  $\text{CH}_3\text{OH}$  up to a volume of 30 to 50 ml are added to the sample, and the mixture is titrated with 0.001 - 0.05 N OA solution, as described previously (RZhKhim, 1960, no. 20, 80867). As indicator is added 0.5 ml of 20 mg thioflourescein (XXXI) dissolved in several ml of 1 N  $\text{NH}_4\text{OH}$  solution, diluted to a volume of 50 ml by 0.05 N solution of ethylene diamine tetraacetic acid, or 0.2 ml 0.1% solution of dithizone (XXXII) in  $\text{C}_2\text{H}_5\text{OH}$ . In the first case titration is carried out till the blue color disappears; in the second case till the yellow color.

Card 2/4

S/081/63/000/003/008/036

B144/B186

Desulfurating titration of organic ...

turns purple. Titration is carried out at 30 - 40°C. Samples II-IV are prepared in the same manner; 5 - 20 ml toluene is added to the solution and titrated at 20°C in the presence of XXXI, as long as the blue color does not disappear for at least 30 sec. Samples XI - XV are dissolved in 5 ml 1 N NaOH solution, diluted to a volume of 25 ml and titrated with 0.05 N OA solution at 80 - 90°C in the presence of XXXI. In the titration of XII - XV 1 - 2 ml excess OA solution is added; after some minutes 25 ml cold water and 2 ml ~0.1 N Na<sub>2</sub>S solution containing 2% Na<sub>2</sub>S and 1% NaOH, are added, and the Na<sub>2</sub>S excess is titrated with OA solution in the presence of XXXII. The amount of OA solution consumed in the titration of the added quantity of Na<sub>2</sub>S is determined separately. To samples XVI and XVII, up to 20 ml 1 N NaOH solution is added, heated to boiling, and an excess of 0.05 N OA solution is added; after 5 min, 30 ml 1 N NH<sub>4</sub>NO<sub>3</sub> solution, 50 ml cold water and 2 - 4 ml Na<sub>2</sub>S solution are added, and the Na<sub>2</sub>S excess is titrated in the presence of XXXI. XVIII - XX are boiled for 5 - 10 min in alkaline

Card 3/4

S/081/63/000/003/008/036

B144/B186

Desulfurating titration of organic ...

solution with CA excess. XXI - XXX cannot be determined by the method described. I - X can be determined in the presence of XIII - XXX; therefore titration must be conducted at 25°C. XXV - XXX do not interfere with the determination of I - XVII. [Abstracter's note: Complete translation.]

Card 4/4

WRONSKI, Mieczyslaw

Mercurimetric determination of some sulfides.  
Nauki matem przyrod Lodz no.13:141-145 '62.

1. Katedra Technologii Chemicznej, Uniwersytet, Lodz.

WRONSKI, Mieczyslaw

Determination of equivalent weight of organic acids by titration  
of benzylthiuronium salts with a HMB solution. Chem anal  
8 no.1:113-115 '63.

1. Katedra Technologii Chemicznej, Uniwersytet, Lodz.

WRONSKI, Mieczyslaw

Thiomercurimetric determination of boron organic compounds.  
Chem anal 8 no.2:299-300 '63.

1. Katedra Technologii Chemicznej, Uniwersytet, Lodz.

WRONSKI, Mieczyslaw

Mercurimetric determination of cystine together with  
cysteine and sulfides. Chem anal 8 no.3:467-471 '63.

1. Katedra Technologii Chemicznej, Uniwersystet, Lodz.

WRONSKI, Mieczyslaw; BOGDANSKI, Janusz

Kinetics of cyanoethylation reaction of water, alcohols, amines,  
and sulphydryl compounds. Nauki matem przyrod Lodz no.14:153-174  
'63.

1. Katedra Technologii Chemicznej, Uniwersytet, Lodz.

WRONSKI, Mieczyslaw, doc. dr inz.

Thiomercurimetric titration. Wiad chem 17 no.1:1-27 Ja '63.

1. Kierownik Katedry Technologii Chemicznej, Uniwersytet,  
Lodz.

WRONSKI, Mieczyslaw, doc. dr

Thiomercurometric determination of nitrites. Chem anal 9 no.1:  
169-170 '64.

1. Katedra Technologii Chemicznej, Uniwersytet, Lodz.

L 31411-66  
ACC NR: AP6022964

SOURCE CODE: CZ/0008/65/000/009/1079/1085

25

B

AUTHOR: Wronski, Mieczyslaw

ORG: Institute of Chemical Technology, University, Lodz (Instytut Technologii Chemicznej Uniwersytetu)

TITLE: Analytical methods in the chemistry of sulfur compounds based on the application of mercury compounds

SOURCE: Chemicke listy, no. 9, 1965, 1079-1085

TOPIC TAGS: desulfurization, sulfide, mercaptan, cystine

ABSTRACT: S compounds are usually determined by reactions based on neutralization, oxidation, or formation of complexes. For selective determination of S, its compounds with metals are used. The use of Cu and Ag is reviewed and the limitations of these metals discussed. Hg offers these advantages: The bond between Hg and S is very strong; mercurometric titrations are suitable even in the presence of substances that would make other methods unusable. The equivalence point can be indicated electrometrically or by the use of indicators; a great number of organic compounds of mercury may be used as reagents. Selective determinations of sulfides and mercaptans, cystine and cysteamine, selective desulfurization titration, and the use of selective masking agents are discussed. Orig. art. has: 2 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 11Jun64 / ORIG REF: 034 / OTH REF: 057

Card 1/1 DT

095

1048

WRONSKI, S.

CP

Effect of temperature on the intensity of x-rays reflected from various planes of zinc crystal. S. Wroński. *Acta Phys. Polon.* 7, 357-60 (1938) (in German).—The relative intensities of x-rays reflected from various crystallographic planes of metallic Zn were find. by the Debye-Scherrer method at room temp. and at 507°K. From these measurements the following values were calc'd. for the amplitudes of thermal oscillation of Zn atoms at room temp.:  $a_0 = 0$  (parallel to the  $c$ -axis) = 0.127 Å.;  $a_0 = 90$  (perpendicular to the  $c$ -axis) = 0.0734 Å. The characteristic temps. calc'd. from these values are  $\theta_1 = 200^{\circ}\text{K}$ , and  $\theta_2 = 347^{\circ}\text{K}$ , resp. R. Józefowicz

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## ASMELE 4 METALLURGICAL LITERATURE CLASSIFICATION

WROŃSKI 5

AC

A-1

Influence of temperature on the intensity of Röntgen rays reflected from different planes of the zinc crystal. S. WMOŁA (Acta Phys. Polon., 1939, 7, 357-366).—The relative intensities of reflexion from different lattice planes of the Zn crystal have been measured at room temp. and 567° K. by the Debye-Scherrer method. At room temp. the amplitudes of heat oscillations of the Zn atom in the direction of and normal to the *c*-axis are calc. to be 0.127 and 0.0734 Å. Calc. val. for the characteristic temperature of Zn are  $\theta_0 = 200^\circ$  K.,  $\theta_1 = 347^\circ$  K.

O. D. S.

DEPARTMENTAL LITERATURE CLASSIFICATION

ALUMNAE 1961

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001961730003-1"

POLAND/Physical Chemistry. Thermodynamics. Thermochemistry. B  
Phase Transitions. Equilibria. Physico-Chemical  
Analysis.

Abs Jour: Ref. Zhur. - Khimiya, No. 4, 1959, 10987

Authors: Ciborowski J., Wronski S.

Inst: Not given

Title: A Psychometric Chart for the System, Air - Ethyl  
Acetate.

Orig Pub: Chem. stosow, 1958, 2, 147-152.

Abstract: On the basis of literature data, a psychrometric diagram was drawn for the system, air - ethyl acetate. A disagreement between the psychrometric and adiabatic lines was discovered. A comparison of some points, taken from this diagram, with a few experimental results, previously obtained (Mark I. G., Trans. Amer. Inst. Chem. Engrs., 1932,

Card 1/2

COUNTRY	: Poland	H-8
CATEGORY	:	
ABS. JOUR.	: RZKhim., No. 21 1959, No.	75402
AUTHOR	: Ciborowski, J. and Wronski, S.	
INST.	: Not given	
TITLE	: The Reduction of Sodium Sulfate with Hydrogen in Fluidized Beds	
ORIG. PUB.	: Przemysl Chem, 37, No 8, 520-522 (1958)	
ABSTRACT	: The possibility of carrying out the reduction of $Na_2SO_4$ in fluidized beds at temperatures exceeding the melting point of the eutectic has been investigated. The reaction proceeds at low sulfate concentrations and at high hydrogen rates, assuring intensive mixing. The sulfate is reduced in 8 min when mixtures containing 5 and 7.5% sulfate are used and the grain size in the charge is 0.15-0.3 mm, in the presence of 1% iron (catalyst). The reduction is accompanied by an increase in the size of the grains as a result of agglomeration. From authors' summary	

CARD: 1/1

176

CIBOROWSKI, Janusz; WRONSKI, Stanislaw

Investigation of sublimating condensation of naphthalene by mixing  
with fluidal charge. Chemia stosow 3 no.4:447-460 '59. (EEAI 9:6)

1. Zaklad Inzynerii Chemicznej Politechniki Warszawskiej i  
Instytutu Chemii Ogolnej.  
(Naphthalene)

WRONSKI, S.

5(2)

SOV/80-32-3-1/43

AUTHORS: Cyburski, F., Wronski, S.

TITLE: Reduction of Sodium Sulfate by Hydrogen in a Pseudo-Liquefied Layer (Vosstanovleniye sulfata natriya vodorodom v pseudo-ozhizhennom sloye)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol XXXII, Nr 3, pp 473-477 (USSR)

ABSTRACT:  $\text{Na}_2\text{S}$  may be obtained by the reduction of  $\text{Na}_2\text{SO}_4$  using hydrogen as reducing agent [Ref 1, 2]. An apparatus has been developed for this purpose (Figure 1). The experiments were carried out in two series: in homogeneous  $\text{Na}_2\text{SO}_4$  and in a mixture of  $\text{Na}_2\text{SO}_4$  and  $\text{Na}_2\text{S}$ . The reaction in the homogeneous substance proceeded in various stages at 620, 640, 680 and 720 - 760°C. The final product contained 86 - 97%  $\text{Na}_2\text{S}$ . In the mixture hydrogen was introduced at the rate of 20 l/min. At low temperatures the sulfide yield was 88%, above 700°C 97%. An iron catalyst in the amount of 1% was used in the experiments. The consumption of hydrogen was only 5% under the most favorable conditions.

Card 1/2 There are 3 graphs, 1 diagram and 10 references, 3 of which

SOV/80-32-3-1/43

Reduction of Sodium Sulfate by Hydrogen in a Pseudo-Liquefied Layer

are Soviet, 3 German, 2 English, 1 Polish and 1 American.

ASSOCIATION: Kafedra protsessov i apparatov khimicheskoy tekhnologii Varshavskogo politekhnicheskogo instituta i instituta obshchey khimii (Chair of Processes and Apparatuses of Chemical Technology of the Warsaw Polytechnical Institute and the Institute of General Chemistry)

SUBMITTED: June 17, 1958

Card 2/2

CIBOROWSKI, Janusz; WRONSKI, Stanislaw

Testing of sublimating condensation of naphthalene by mixing with a fluidal charge. Chemia stosow 3 no.4:447-460 '59.

1. Zaklad Inżynierii Chemicznej, Politechnika, Warszawa i Instytut Chemiczny Ogólnej, Warszawa.

CIBOROWSKI, Janusz; WRONSKI, Stanislaw

The continuous method of sublimating condensation in fluidised bed.  
Przem chem 40 no.8:433-436 Ag '61.

1. Katedra Inżynierii Chemicznej Politechniki Warszawskiej i Zakład  
Inżynierii Chemicznej Instytutu Chemicznej Organicznej.

CIBOROWSKI, Janusz; WRONSKI, Stanislaw

Sublimating condensation in a membrane cooled fluidized bed.  
Chemia stosow 6 no.2:153-165 '62.

1. Katedra Inzynierii Chemicznej, Politechnika, i Zaklad Inzynierii  
Chemicznej, Instytut Chemii Ogolnej, Warszawa.

CIBOROWSKI, Janusz; WRONSKI, Stanislaw

Mass and heat transfer from fluidized bed of sublimate  
material to the cooler wall. Chemia stosow 6 no. 4:529-540  
'62.

1. Katedra Inżynierii Chemicznej, Politechnika, Warszawa,  
i Zakład Inżynierii Chemicznej, Instytut Chemii Ogólnej,  
Warszawa.

CIBOROWSKI, Janusz; WRONSKI, Stanislaw

Studies on the efficiency of heat recovery in a cyclone  
exchanger working with a fluidized-solid furnace. Przem chem  
42 no.1:38-41 Ja '63.

1. Katedra Inżynierii Chemicznej, Politechnika, Warszawa.

WRONSKI, W.

Characteristics of casein fibers, p. 232. (PRZEMYSŁ WŁOKIENNYCZY, Lodz, Vol. 7, no. 9/10, Sept./Oct. 1953.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 4, Jan. 1955,  
Uncl.

Wronska, W.T.

✓ swelling of casein fibers. Wl. Wroński and H. Jabłon-  
ski, *Przemysł Włókienniczy* 9, 239-42 (1955).—The swell-  
ing of various types of fibers in the presence of water was  
discussed in general. The centrifugal method of detg. the  
swelling rate (SR) is described. It was established that the  
SR value of casein fibers depends on the compds. and temp.  
of the hardening bath as well as on stretching condition.  
The presence of Al sulfate reduces the SR. SR does not  
depend on the HCHO concn. within the range of 25-40  
g/l. It depends, however, upon the time and temp. of fix-  
ing. The presence of NaCl or Na<sub>2</sub>SO<sub>4</sub> in the HCHO co-  
agulating bath improves the water resistance of fibers; the  
effect of NaCl is slightly stronger than that of Na<sub>2</sub>SO<sub>4</sub>.  
In proportion to the increase in the degree of stretching SR  
decreases. It was also proved that deamination with a  
NaNO<sub>2</sub> soln. reduces the SR of casein fibers. The optimum  
coagulating temp. in relation to the swelling value was  
68-70°. *A. Wielopolski*

2

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001961730003-1

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001961730003-1"

WRONSKI, W.

POLAND/Chemical Technology - Chemical Products and Their  
Application, Part 4. - Artificial and Synthetic  
Fibers.

H-31

Abs Jour : Ref Zhur - Khimiya, No 7, 1958, 23449  
Author : W. Wronski  
Inst :  
Title : Quality Problem of Artificial Protein Fibers.  
Orig Pub : Przem. chem., 1957, 13, No 4, 199-204  
Abstract : Bibliography with 19 titles.

Card 1/1

WRONSKI, Wieslaw, mgr

Size of deposit and profitability of mining it. Rudy i metale  
9 no.11:614-617 N '64.

WRONSKI, Wieslaw, mgr

Economic aspects of investing and management of mining copper  
deposits. Rudy i metale 8 no.7:254-257 Je '63.

WRONSKI, Wieslaw, mgr.; JARCYK, Kazimierz, mgr

On the difficulties of practical application of the economic  
indicator of investment effectiveness in mining. Rudy i  
metale 7 no.8:367-369 Ag '62.

CYPRYK, Jerzy; WRONSKI, Włodzimierz

Coagulation of polyacrylonitrile solutions. Tworzywa wielkocząst 6  
no.11:363-367 N '61.

S/081/62/000/024/020/052  
B117/B186

AUTHORS: Cypryk, Jerzy, Wronski, Włodzimierz

TITLE: Coagulation of polyacrylonitrile solutions

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24 (II), 1962, 833 - 834,  
abstract 24P95 (Polimery, tworzywa, wielkoczasteczkowe, v. 6,  
no. 11, 1961, 363 - 367 [Pol.; summaries in Eng. and Russ.])

TEXT: The coagulation of polyacrylonitrile from aqueous solution of dimethyl formamide was studied. The effects due to temperature and concentration of dimethyl formamide, and those due to concentration of polyacrylonitrile solution, on the transparency of films was determined. Photographs are given showing the microstructures of films obtained at concentrations of a dimethyl formamide solution between 30 and 70 % at 20°C and at 60 % at 15, 30, and 40°C. It was shown that a transparent gel without bubbles forms from the 40 - 60 % aqueous dimethyl formamide solution below 20°C and at a concentration of polymer (molecular weight 73 000) > 20 %.  
[Abstracter's note: Complete translation.]

Card 1/1

Wronski, Z.

TOWPIK, J.; WRONSKI, Z.

Numeric and clinical characteristics of late symptomatic syphilis.  
Polski tygod. lek. 7 no. 17:519-526 28 Apr 1952. (CLML 22:4)

1. Of the Clinical Department (Head--J. Towpik, M. D.) of the Na-  
tional Institute of Dermatology and Venereology (Director--J.  
Suchanek, M. D.)

FONIOK, F.; WRONSKI, Z.

High-power ferrite resonance insulators. Pt. 1. Przem. inst telekom  
prace 14 no.46:23-27 '64.

LL2019-65

P/2507/64/014/046/0023/0037

ACCESSION NR: AT5007776

AUTHOR: Foniok, F.; Wronski, Z. (Wron'ski, Z.)

TITLE: High-power ferrite resonance isolators. Part I. Design methods

SOURCE: Warsaw. Przemyslowy Instytut Telekomunikacji. Prace, v. 14, no. 46, 1964,

23-37

TOPIC TAGS: isolator design, ferrite isolator, resonance isolator, high power isolator, ferrite polarization, waveguide, dielectric loss, saturation magnetization

ABSTRACT: The article gives a comprehensive review of methods used in the design of high-power ferrite resonance isolators consisting of ferrite and dielectric plates mounted in a waveguide. The article is divided into two parts. The first part deals with the design of isolators with a single ferrite plate, and the second part deals with isolators with two ferrite plates. The most important design specifications are given, such as the required power, the required isolation, the required bandwidth, and the required efficiency. The article also discusses the influence of various parameters on the performance of the isolators, such as the ferrite polarization, the dielectric loss, and the saturation magnetization.

power, ~~imp~~, and upper and lower bounds on the  
Card 1/4

L42019-65

ACCESSION NR: AT5007776

the minimization and for its temperature variations are given. The methods for choosing the dielectric material are also discussed. Techniques for calculating the physical dimensions of the waveguide are discussed in detail. The thickness of the dielectric material and the width of the waveguide are calculated.

tables.

Card 2/4

L 42019-65

ACCESSION NR: AT5007776

ASSOCIATION: Przemyslowy Instytut Telekomunikacji, Warsaw (Telecommunications  
Research Institute)

SUBMITTED: 26Oct63

ENCL: 01 SUB CODE: EC

NO REF SOV: 002

OTHER: 010

WROTEK, Jerzy

Optimum approach in isoparametric processes. Chemia stosow A  
9 no.1:41-49 '65.

1. Department of Chemical Technology of Warsaw University.  
Submitted February 1, 1964.

MALAWSKI, Marek J.; WROTEK, Jerzy

A method of graphic analysis of the kinetics of a system of inter-dependent chemical reactions. I. Rocznik chemii 34 no. 5: 1297-1306 '60. (EEAI 10:9)

1. Katedra Chemii Organicznej Uniwersytetu, Warszawa.

(Chemical reactions)

WROTEK, Jerzy, mgr inz.

New joints for electric overhead conductors. Przegl kolej  
elektrotech 11 [i.e. 16] no. 5:153-154 My '64.

WROTNOWSKA, Barbara

Hydrogeolocial picture of the Chmielnik region. Kwartalnik  
geol 5 nr.4:975-976 '61.

1. Zaklad Hydrogeologii, Instytut Geologiczny, Warszawa.

WROTNY, L.

Pneumatic devices in machine tools. Pt. 1. (To be Contd) p. 141

PRZEGLAD MECHANICZNY. (Stowarzyszenie Inzynierow i Technikow Mechanikow Polskich) Warszawa, Poland  
Vol. 18, no.5, Mar. 1959

Monthly list of East European Accessions (EEAI) LC, Vol.8, no.2, July 1959

Uncl.

WROTNY, L.

Pneumatic devices in machine tools. Pt. 2. p. 177

PRZEGŁAD MECHANICZNY. (Stowarzyszenie Inżynierów i Techników Mechaników Polskich)  
Warszawa, Poland  
Vol. 18, no. 6, Mar. 1959

Monthly List of East European Accession (EEAI) LC, Vol. 8, no. 7, July, 1959

Uncl.

WROTNY, L.

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